

Overview

U.S. milk production continues to grow at an annual rate of less than 1 percent, and domestic commercial use of cheese and butter continues to increase somewhat faster than production. Despite this, milk prices are weakening going into the first half of 2016. Weakness in world markets is transmitting low prices into the domestic nonfat dry milk and dry whey markets, while exports of butter and cheese remain well below levels of last year. The bimonthly MPP margin for November-December was \$9.56, but most forecasts project that it will fall to between \$7 and \$8 during the next few months.

Commercial Use of Dairy Products

U.S. fluid milk sales were down by 1 percent from a year earlier during the September-November period. This was one of the smallest rates of decline for a three-month period in recent years. Whole milk sales rose 5.4 percent from a year earlier while reduced fat milk sales were down by 3.7 percent. Domestic commercial use of butter rose almost 7 percent from a year earlier, a result of small increases in production and imports, net drawdown in stocks, and reduced exports. Domestic use of both American-type and other cheese grew faster than production, due to reduced exports, with the net stocks drawdown also contributing to other cheese use. Commercial use of nonfat dry milk and skim milk powder was down less than production due to a net drawdown in stocks. But a large increase in exports caused domestic use to

drop by more than production. Total use of milk in all products was up on both a milkfat and a skim solids basis, with decreased milkfat exports boosting domestic use, on a milkfat basis, by 2.5 percent from a year ago.

U.S. Dairy Trade

Skim milk powder and nonfat dry milk were the only major products for which export volumes showed a significant gain from a year earlier during the fourth quarter. Whey protein concentrate and lactose exports were basically flat, but dry whey exports were off by almost 30 percent. Butter and anhydrous milkfat exports were both down by more than half. Total cheese exports were about 10 percent lower than a year ago, but American-type cheese and Cheddar were off by more than 30 percent.

continued on page 2

| Domestic Commercial Use | Sept–Nov 2015 | Sept–Nov 2014 | 2014–2015 Change | Percent Change |
|---|------------------|---------------|------------------|----------------|
| | (million pounds) | | | |
| Total Fluid Milk Products | 12,612 | 12,745 | -133 | -1.0% |
| Butter | 520 | 487 | 33 | 6.7% |
| American-type Cheese | 1,141 | 1,116 | 24 | 2.2% |
| All Other Cheese | 1,764 | 1,703 | 61 | 3.6% |
| Nonfat Dry Milk / Skim Milk Powders | 199 | 282 | -84 | -29.7% |
| All Products (milk equiv., milkfat basis) | 51,810 | 50,542 | 1,268 | 2.5% |
| All Products (milk equiv., skim solids basis) | 43,239 | 42,987 | 252 | 0.6% |

U.S. Dairy Trade *from page 1*

American-type cheese exports were down particularly to Middle Eastern, North African and Europe destinations, all due largely to the Russian food embargo, which has displaced large volumes of EU cheese exports since mid-2014. U.S. exports of American cheese were also down significantly to Central and South America, Southeast Asia, and Oceania due to increased competition from New Zealand, Australia and Europe. On the other hand, American cheese exports have held up relatively well to East Asia and – closer to home – Mexico, Canada and the Caribbean. Exports of all products were equivalent to 13 percent of U.S. milk solids production during the fourth quarter.

Fourth-quarter dairy imports were slightly higher than a year earlier as a percentage of milk solids production. Butter, cheese

and casein imports were all up, while milk protein concentrate imports were lower.

Milk Production

Milk production was 0.6 percent higher during the fourth quarter of 2015 than during the same period in 2014, according to data from USDA's National Agricultural Statistics Service (NASS).

Total cows and production per cow both grew by less than half a percent. Quarterly milk production was below a year ago in half the states, which produced 43 percent of the nation's milk. The year-over-year rate of production change trended down during 2015 in three quarters of the states, which also produced three quarters of the milk. These changes, together with the price and margin outlook, indicate milk production will continue to grow slowly, if at all, well into the current year.

| U.S. Dairy Exports | Oct–Dec 2015 | Oct–Dec 2014 | 2014–2015 Change | Percent Change |
|----------------------------------|--------------|---------------|------------------|----------------|
| | | (metric tons) | | |
| Butter | 2,721 | 5,671 | -2,951 | -52% |
| Anhydrous Milk Fat/Butteroil | 1,112 | 2,887 | -1,775 | -61% |
| Cheddar Cheese | 7,400 | 10,676 | -3,276 | -31% |
| American-type Cheese | 7,897 | 11,641 | -3,744 | -32% |
| Total Cheese | 71,298 | 78,134 | -6,835 | -9% |
| Nonfat Dry Milk/Skim Milk Powder | 138,612 | 115,098 | 23,515 | 20% |
| Whole Milk Powder | 4,744 | 11,641 | -6,898 | -59% |
| Dry Whey | 63,242 | 89,007 | -25,765 | -29% |
| Whey Protein Concentrate/Isolate | 32,666 | 31,329 | 1,337 | 4% |
| Lactose | 87,149 | 87,555 | -406 | 0% |
| Percent of Milk Solids Exported | 13.0% | 13.8% | -0.9% | -6% |

| U.S. Dairy Imports | Oct–Dec 2015 | Oct–Dec 2014 | 2014–2015 Change | Percent Change |
|----------------------------------|--------------|---------------|------------------|----------------|
| | | (metric tons) | | |
| Butter | 5,451 | 4,042 | 1,409 | 35% |
| Cheese | 61,394 | 55,903 | 5,491 | 10% |
| Nonfat Dry Milk/Skim Milk Powder | 426 | 556 | -129 | -23% |
| MPC (all protein levels) | 12,630 | 14,598 | -1,967 | -13% |
| Casein | 18,433 | 16,193 | 2,241 | 14% |
| Percent of Milk Solids Imported | 3.7% | 3.6% | 0.1% | 3% |

Dairy Product Production

Growth in American-type cheese production, and Cheddar cheese production in particular, has been slowing in recent months while the pace of Italian cheese production has picked up. Total cheese production was up 1.9 percent from a year earlier during the fourth quarter. This was the lowest three-month growth since the second quarter of 2015. U.S. butter production rose 2.5 percent from a year ago, the highest three-month growth in a year. Combined production of nonfat dry milk and skim milk powder was down from a year earlier, while combined production of dry whey and whey protein concentrate was up.

Dairy Product Inventories

Butter and cheese stocks exceeded year-ago levels again in December, while nonfat dry milk stocks were below a year ago. December butter stocks were also up from the previous month, while cheese and powder stocks were essentially unchanged. December butter stocks represented about 29 days of average commercial use, compared with an average of 36 days during the previous two years. At the end of September, American cheese stocks were three days above their 54-day average stocks-to-use ratio during 2014-2015, while nonfat dry milk stocks were four days below their 38-day average for the last two years.

| Milk & Dairy Products Production | Oct–Dec 2015 | Oct–Dec 2014 | 2014–2015 Change | Percent Change |
|----------------------------------|--------------|------------------|------------------|----------------|
| Milk Production | | | | |
| Cows (1000 head) | 9,320 | 9,287 | 33 | 0.4% |
| Per Cow (pounds) | 5,498 | 5,487 | 11 | 0.2% |
| Total Milk (million pounds) | 51,240 | 50,956 | 284 | 0.6% |
| Dairy Products Production | | | | |
| | | (million pounds) | | |
| Cheese | | | | |
| American Types | 1,166 | 1,162 | 5 | 0.4% |
| Cheddar | 836 | 819 | 17 | 2.0% |
| Italian Types | 1,311 | 1,275 | 36 | 2.8% |
| Mozzarella | 1,023 | 1,001 | 22 | 2.2% |
| Total Cheese | 3,014 | 2,956 | 57 | 1.9% |
| Butter | 476 | 464 | 11 | 2.5% |
| Dry Milk Products | | | | |
| Nonfat Dry Milk | 391 | 450 | -59 | -13% |
| Skim Milk Powder | 130 | 117 | 13 | 11% |
| Dry Whey | 254 | 215 | 39 | 18.4% |
| Whey Protein Concentrate | 122 | 140 | -18 | -12.6% |

| Dairy Product Inventories | Dec 2015 | Nov 2015 | Dec 2014 | 2014–2015 Change |
|---------------------------|----------|------------------|----------|------------------|
| | | (million pounds) | | |
| Butter | 153 | 133 | 105 | 46% |
| American Cheese | 701 | 698 | 628 | 12% |
| Other Cheese | 445 | 448 | 390 | 14% |
| Nonfat Dry Milk | 199 | 198 | 239 | -17% |

Dairy Product and Federal Order Class Prices

By far, the greatest change from December to January in the prices of the four products surveyed by USDA's Agricultural Marketing Service was a 50-cent-per-pound drop in butter. Together with a smaller, one-month drop in the cheese price, the lower butter price reduced the January Class III price by more than 70 cents per hundredweight. By contrast, the January Class IV price was \$2.21 per hundredweight lower than December, even though the nonfat dry milk survey prices eased off by just a penny. Class III and Class IV prices behave differently in the face of changes in the butter price because butter prices appear as a

deduction in the Federal Order protein price formula – and thus the Class III skim milk price formula as well – and largely offset changes in the Class III butterfat value.

Milk and Feed Prices

As foreshadowed by the Federal Order class prices announced a month earlier, the U.S. average all-milk price reported by NASS for December was a dollar per hundredweight lower than November's price. With a drop of less than 10 cents in the monthly MPP feed cost formula, this reduced the MPP margin by more than 90 cents a hundredweight. The November and December margins produced a bimonthly margin of \$9.56 per

continued on page 5

| Dairy Product and Federal Order Prices | Jan 2016 | Dec 2015 | Jan 2015 | 2015–2016 Change |
|--|----------|---------------------|----------|------------------|
| AMS Commodity Prices | | (per pound) | | |
| Butter | \$2.076 | \$2.571 | \$1.563 | \$0.513 |
| Cheese | \$1.518 | \$1.572 | \$1.581 | -\$0.063 |
| Nonfat Dry Milk | \$0.778 | \$0.789 | \$1.020 | -\$0.243 |
| Dry Whey | \$0.235 | \$0.234 | \$0.588 | -\$0.352 |
| Class Prices for Milk | | (per hundredweight) | | |
| Class I Mover | \$16.04 | \$16.71 | \$18.58 | -\$2.54 |
| Class III | \$13.72 | \$14.44 | \$16.18 | -\$2.46 |
| Class IV | \$13.31 | \$15.52 | \$13.23 | \$0.08 |

| Milk and Feed Prices | Dec 2015 | Nov 2015 | Dec 2014 | 2014–2015 Change |
|-------------------------------------|----------|----------|----------|------------------|
| Producer Prices | | | | |
| All Milk (per cwt.) | \$17.20 | \$18.20 | \$20.40 | -\$3.20 |
| Feed Prices | | | | |
| Corn (per bushel) | \$3.65 | \$3.60 | \$3.79 | -\$0.14 |
| Soybean Meal (per ton) | \$290 | \$309 | \$432 | -\$142 |
| Alfalfa Hay (per ton) | \$150 | \$150 | \$180 | -\$30 |
| 2014 Farm Bill Feed Cost (per cwt.) | \$8.10 | \$8.19 | \$9.71 | -\$1.60 |
| 2014 Farm Bill Margin (per cwt.) | \$9.10 | \$10.01 | \$10.69 | -\$1.60 |
| Retail Dairy Product Prices | | | | |
| Fluid Milk (per gallon) | \$3.310 | \$3.299 | \$3.820 | -\$0.510 |
| Cheddar Cheese (per pound) | \$5.328 | \$5.433 | \$5.438 | -\$0.110 |

Milk and Feed Prices *from page 4*

hundredweight. The change in Federal Order class prices between December and January indicates that the January all-milk price will be approximately \$16 per hundredweight, down another \$1.20 from December. The CME futures indicate the all-milk

price will bottom out at around \$15.50 in late spring and rise into the low \$17s range by fall.

Data from the Bureau of Labor Statistics show that retail prices for whole milk and Cheddar cheese continue to drop from year-earlier levels.

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The **National Milk Producers Federation (NMPF)** is a farm commodity organization representing most of the dairy marketing cooperatives serving the U.S.